

## ABSTRACT

A hearing instrument system detects the insertion or removal of a hearing instrument into a space and includes first and second acoustic transducers, first and second level detection circuitry, and signal processing circuitry. The first acoustic transducer is configured to receive a first electrical signal and in response radiate acoustic energy, and the second acoustic transducer is configured to receive radiated acoustic energy and in response generate a second electrical signal. The first level detection circuitry is operable to receive the first electrical signal and generate a first intensity signal, and the second level detection circuitry is operable to receive the second electrical signal and generate a second intensity signal. The signal processing circuitry is operable to receive the first and second intensity signals and compare the first and second intensity signals and determine whether the hearing instrument is inserted into the space or removed from the space based on the comparison.